



# INTRODUCTION



United States Department of Agriculture  
Animal and Plant Health Inspection Service



## *Protecting American Agriculture.....*

Representing APHIS  
Bill Kelley & Laura Stretch



United States Department of Agriculture  
Animal and Plant Health Inspection Service





# PROGRAMS

- Biotechnology Regulatory Services (BRS)
- International Services (IS)
- Animal Care (AC)
- Wildlife Services (WS)
- Veterinary Services (VS)
- Plant Protection & Quarantine (PPQ)



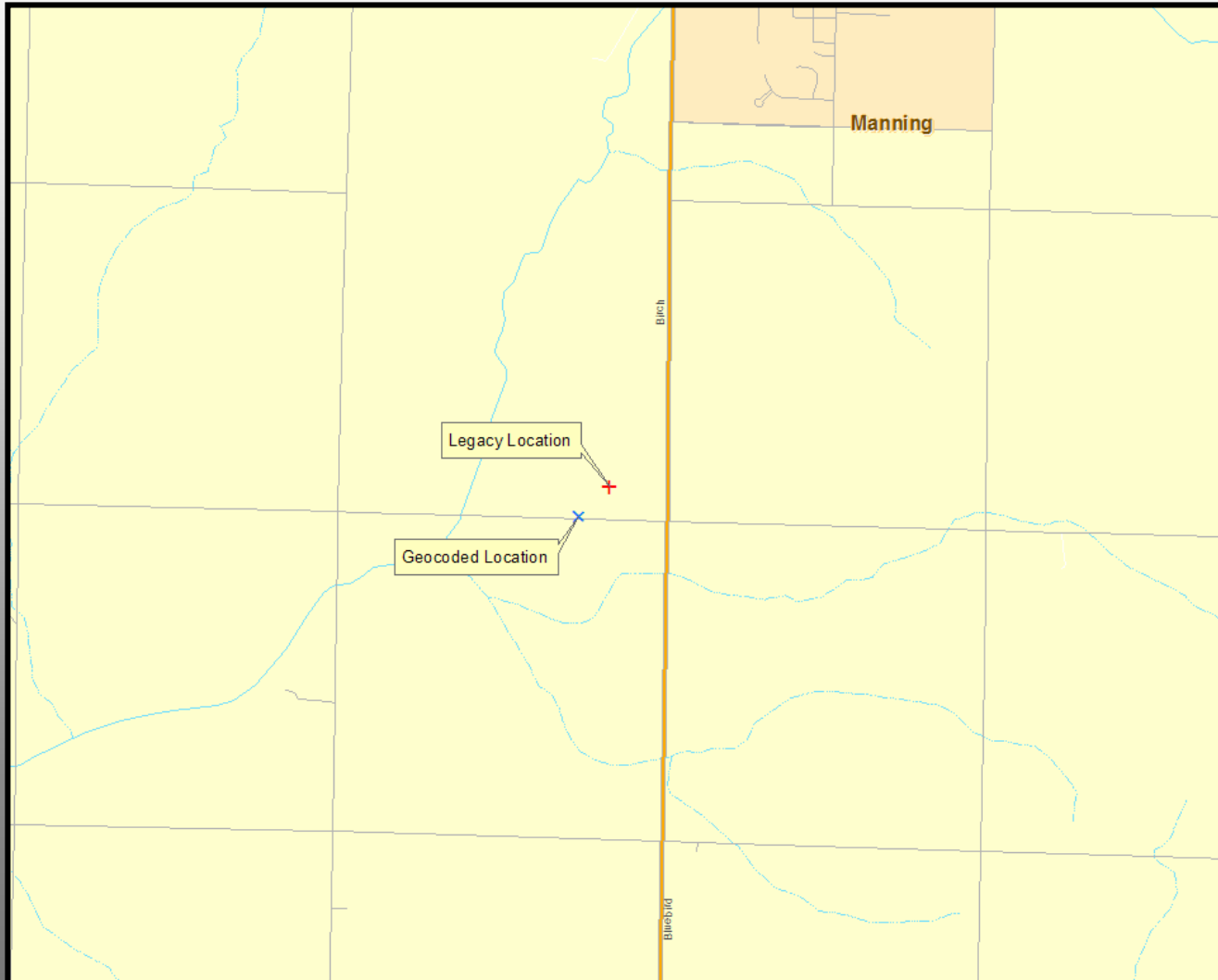
# VETERINARY SERVICES

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- Disease Eradication
  - Program Diseases Surveillance
  - Foreign Disease Surveillance
  - Emergency Response
- A Premise is the Fundamental Element



# Premise Location Validation





# Premise Location Validation





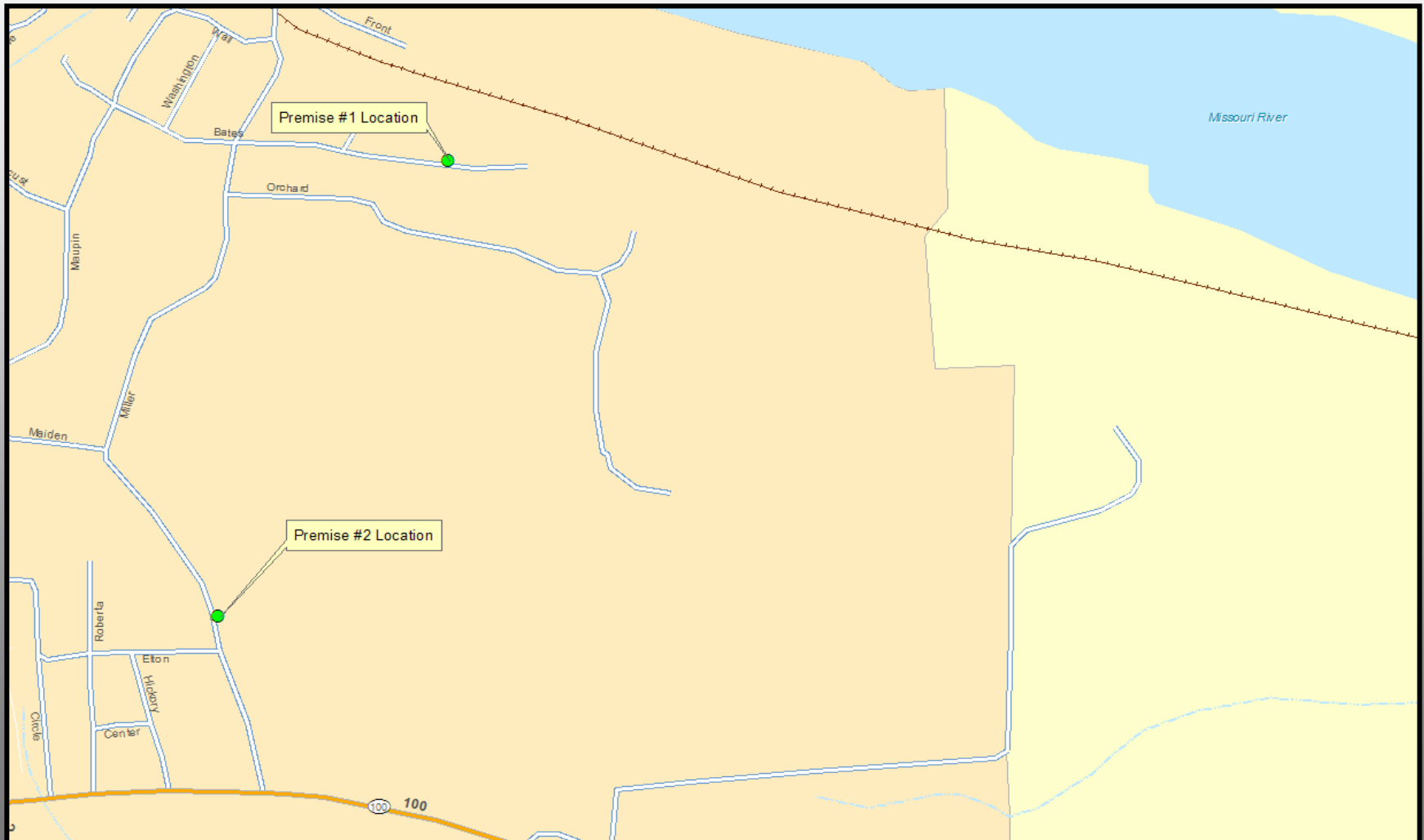
# Premise Location Validation





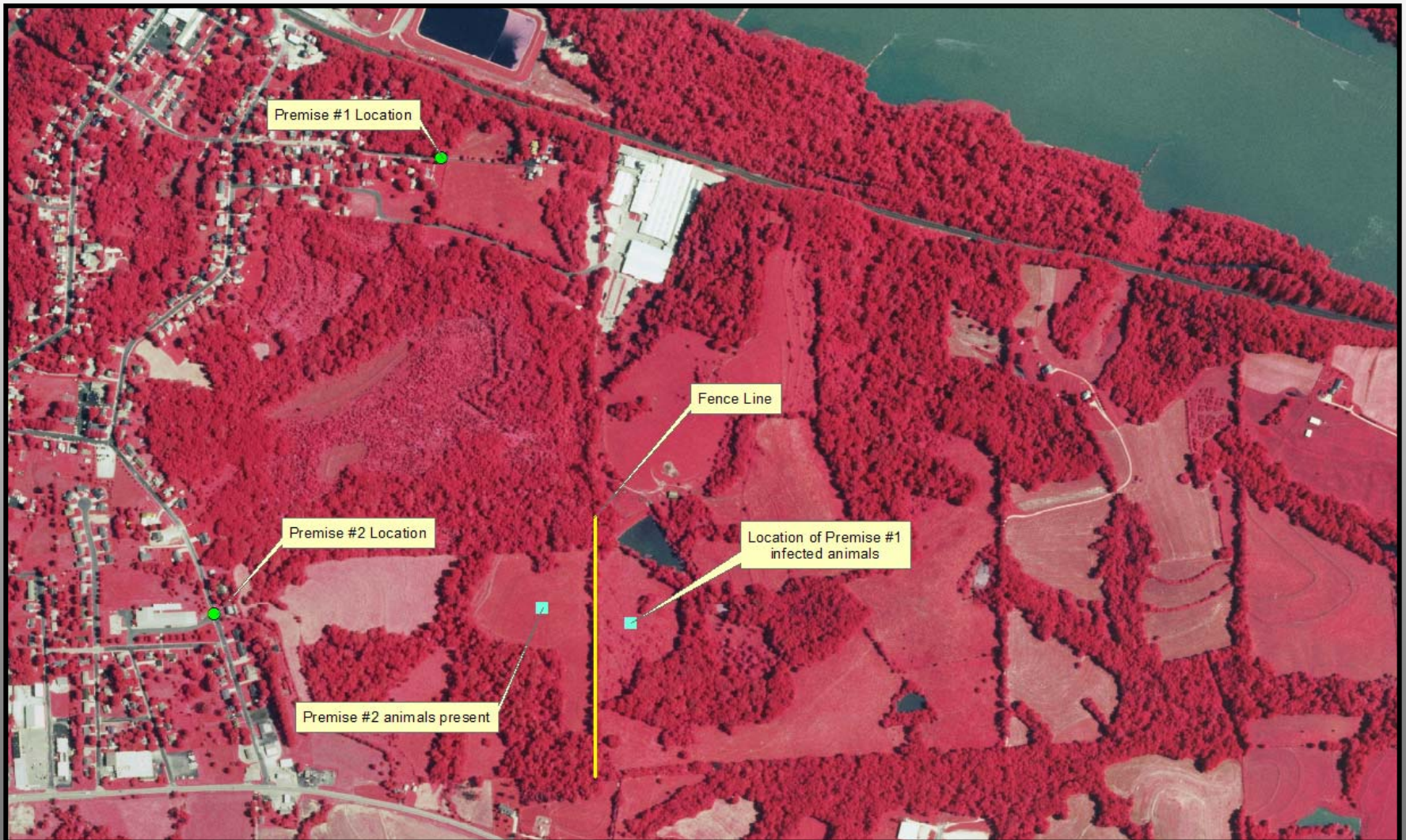


# Situational Awareness





# Situational Awareness







# PLANT PROTECTION & QUARANTINE

## Plant Pest & Disease Detection – Eradication - Control - Mitigation

Agricultural Port Inspection  $\xrightarrow{9/11}$  Pest Survey & Response



# PPQ PROGRAMS

Cotton, Karnal Bunt, Fruit Fly, Citrus Canker, Citrus Greening, Soybean Rust, Glassy-winged Sharpshooter, Plum Pox, Bio-Control, Noxious Weeds, Targeted Detection Surveys, Emergency Response, Biotechnology....

## **All have need for or rely on agricultural spatial data**

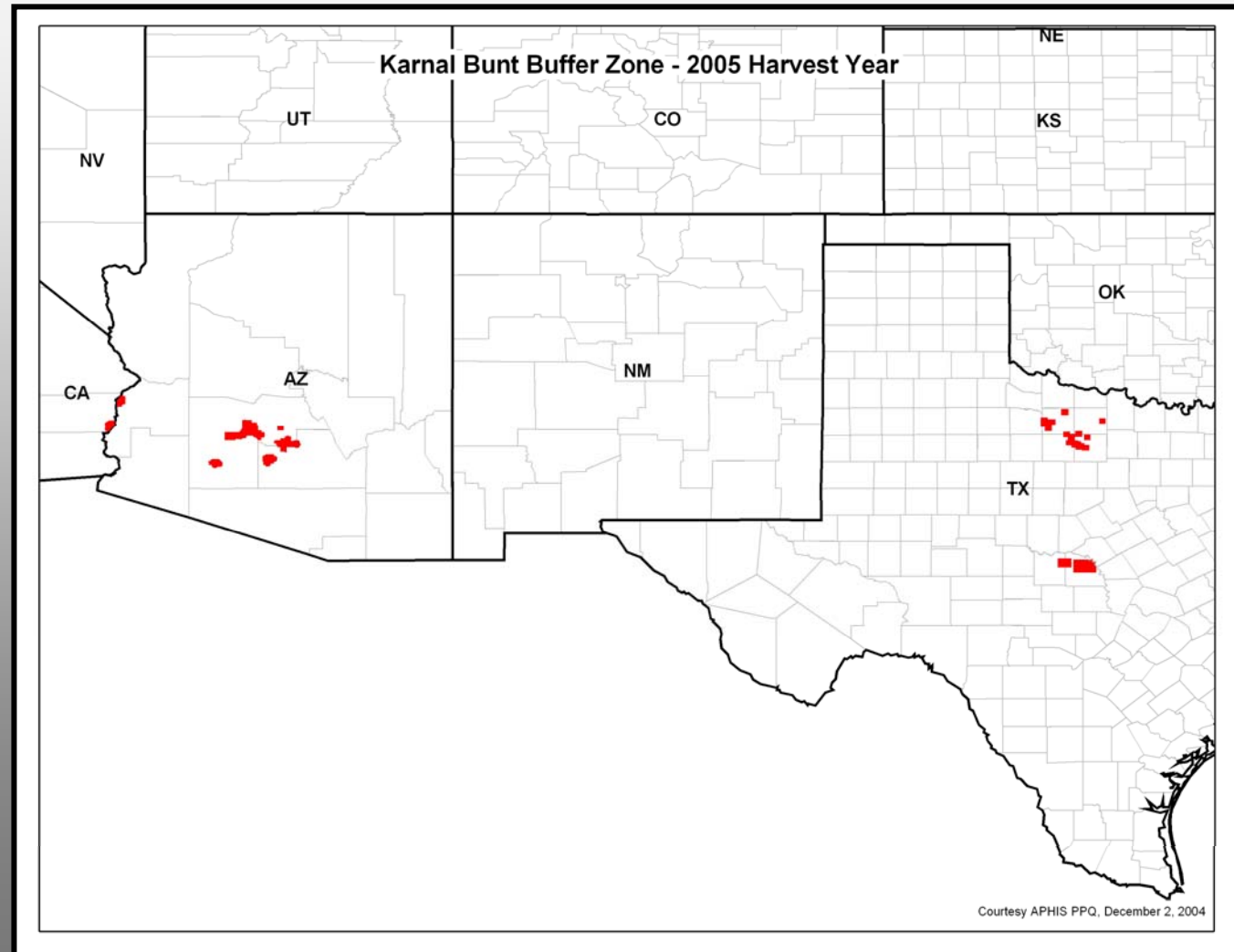
- Facilitate Pest/Disease Program Management
- Reduce Costs/Maximize Resources
- Minimize Risk



# Karnal Bunt Program

## Program

- 3 mile regulated buffer
- Fields within & adjacent  
Are tested for 5 years  
Until Released
- Regulated buffer areas  
Until 2009

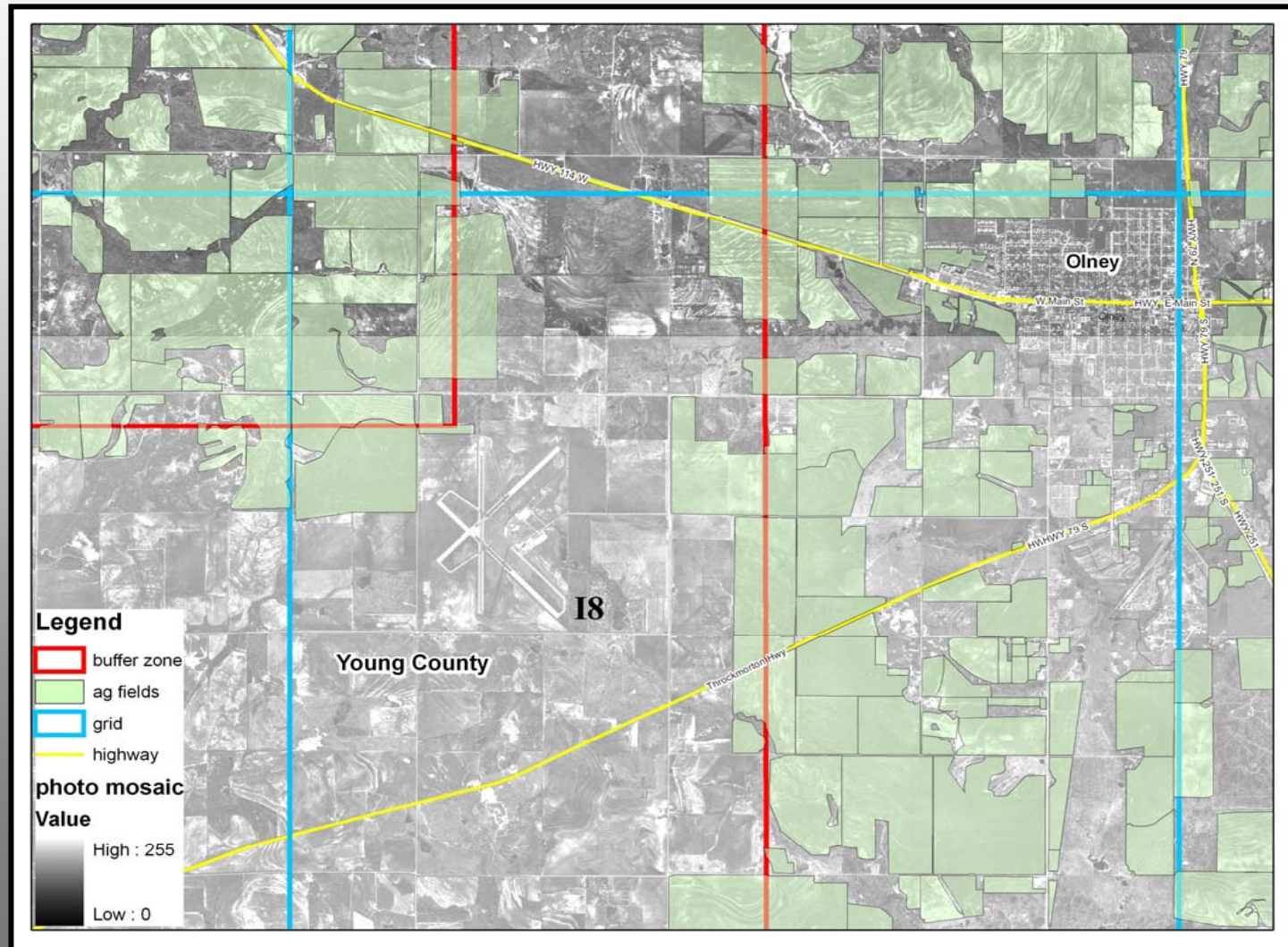




# Karnal Bunt Program

## Data Need

- Annual crop ID & location
- Parcel boundary



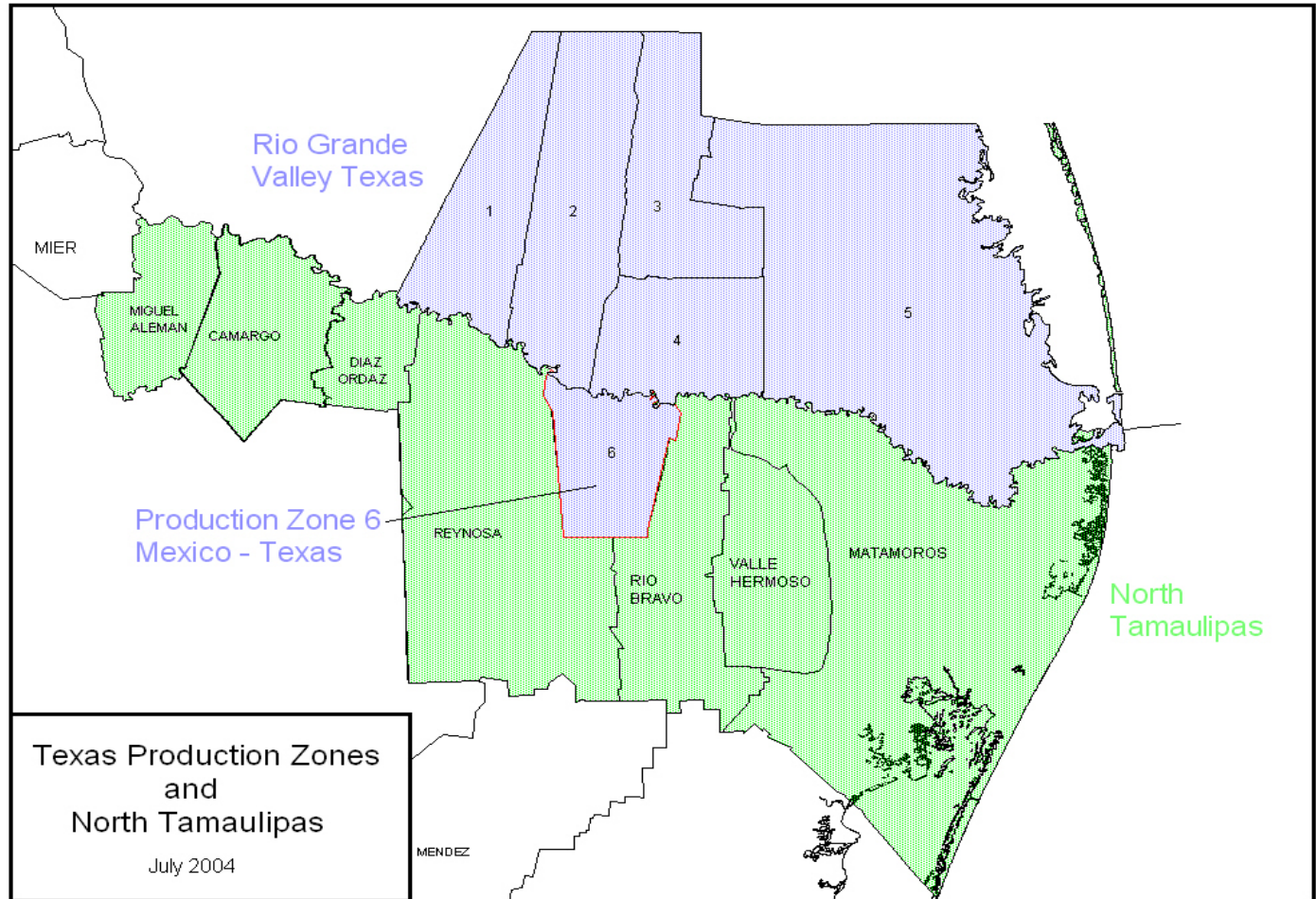




# Fruit Fly Program - Texas

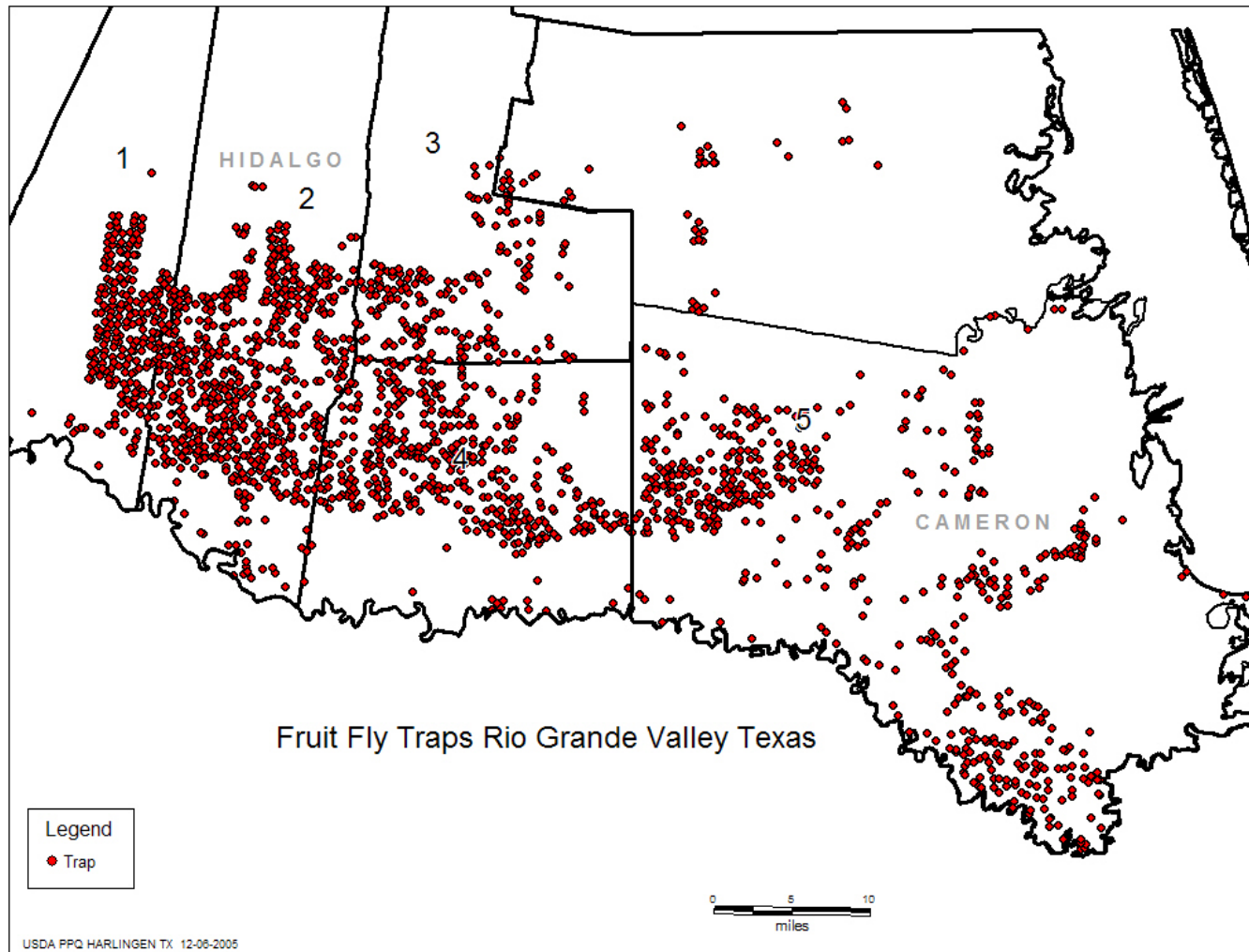
## Program

- 5 Zones in US
- 29000 acres citrus
- 2000 traps





# Fruit Fly Program - Texas

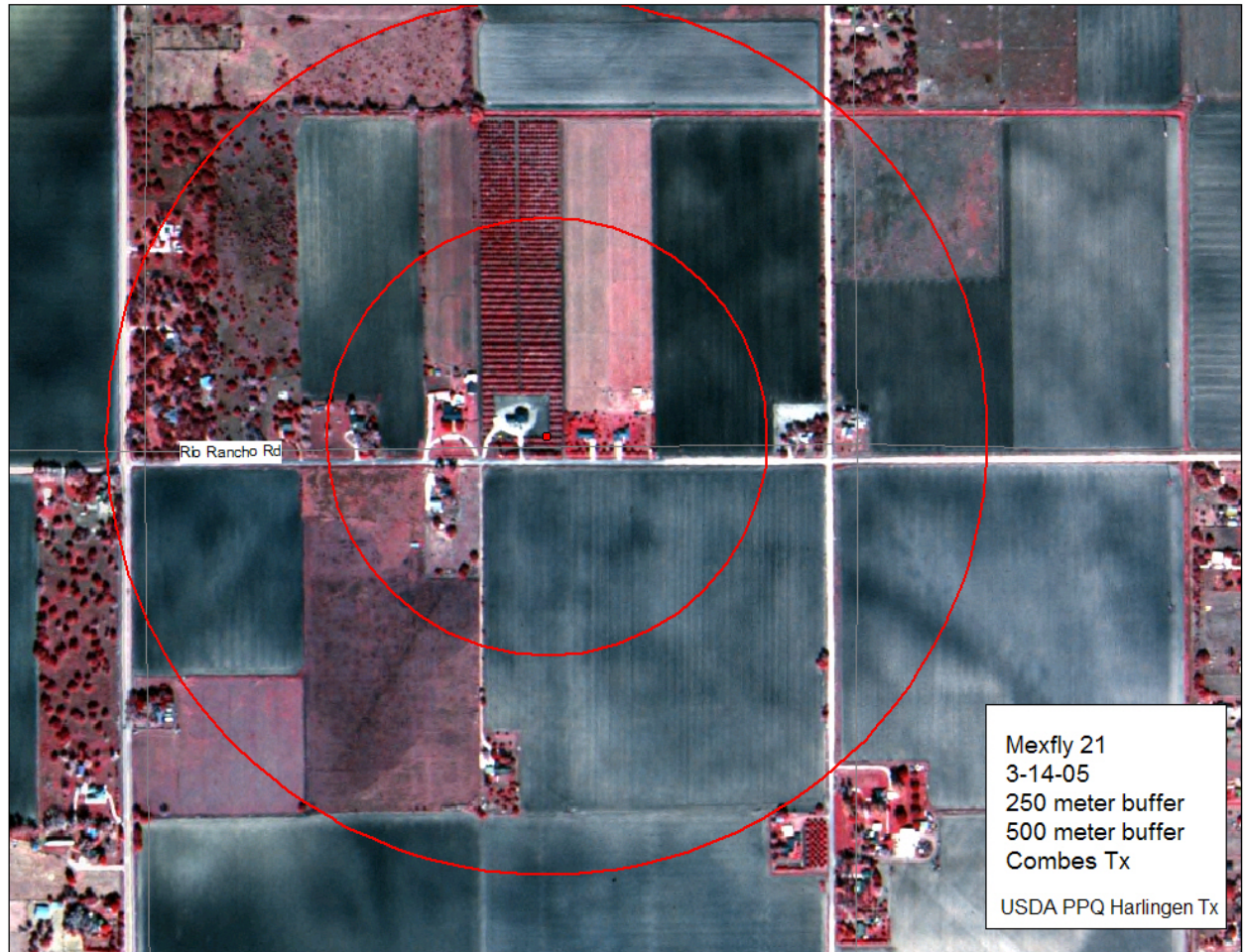




# Fruit Fly Progam - Texas

## Data Need

- Crop Change
- Surrounding crops
- Navigation



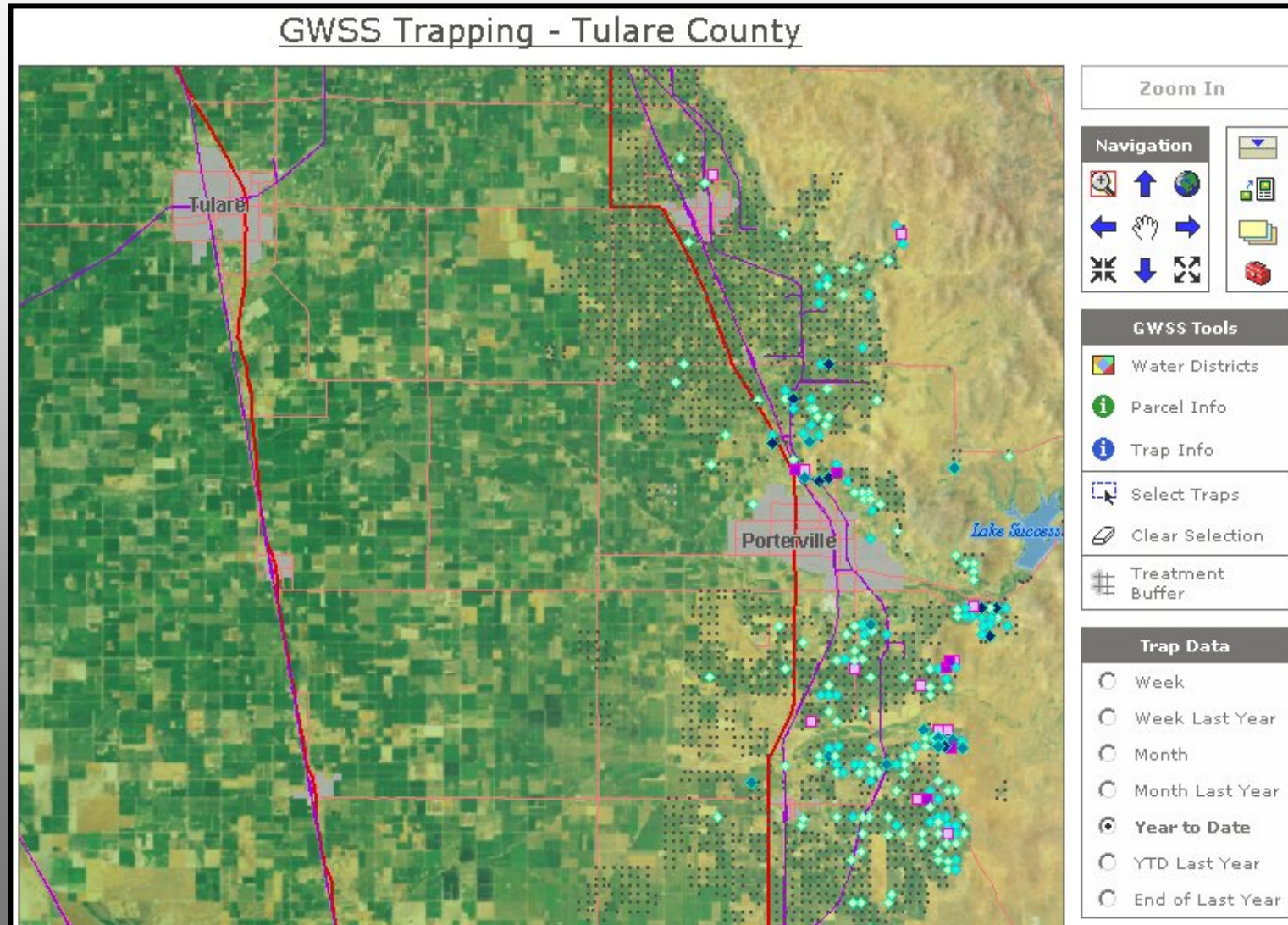




# Glassy-winged Sharpshooter

## Program

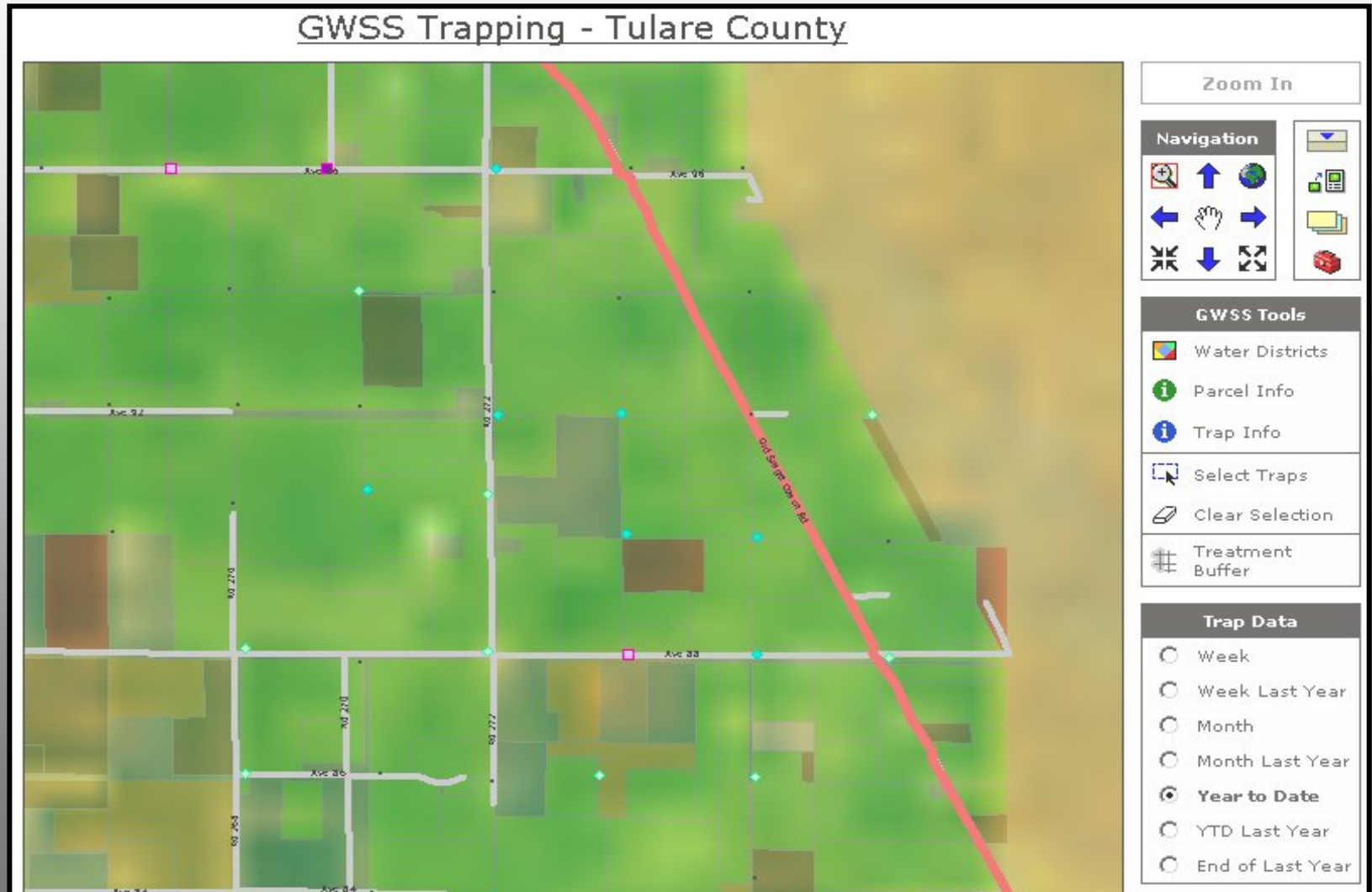
- 4 Counties
- > 8000 traps
- Citrus treated





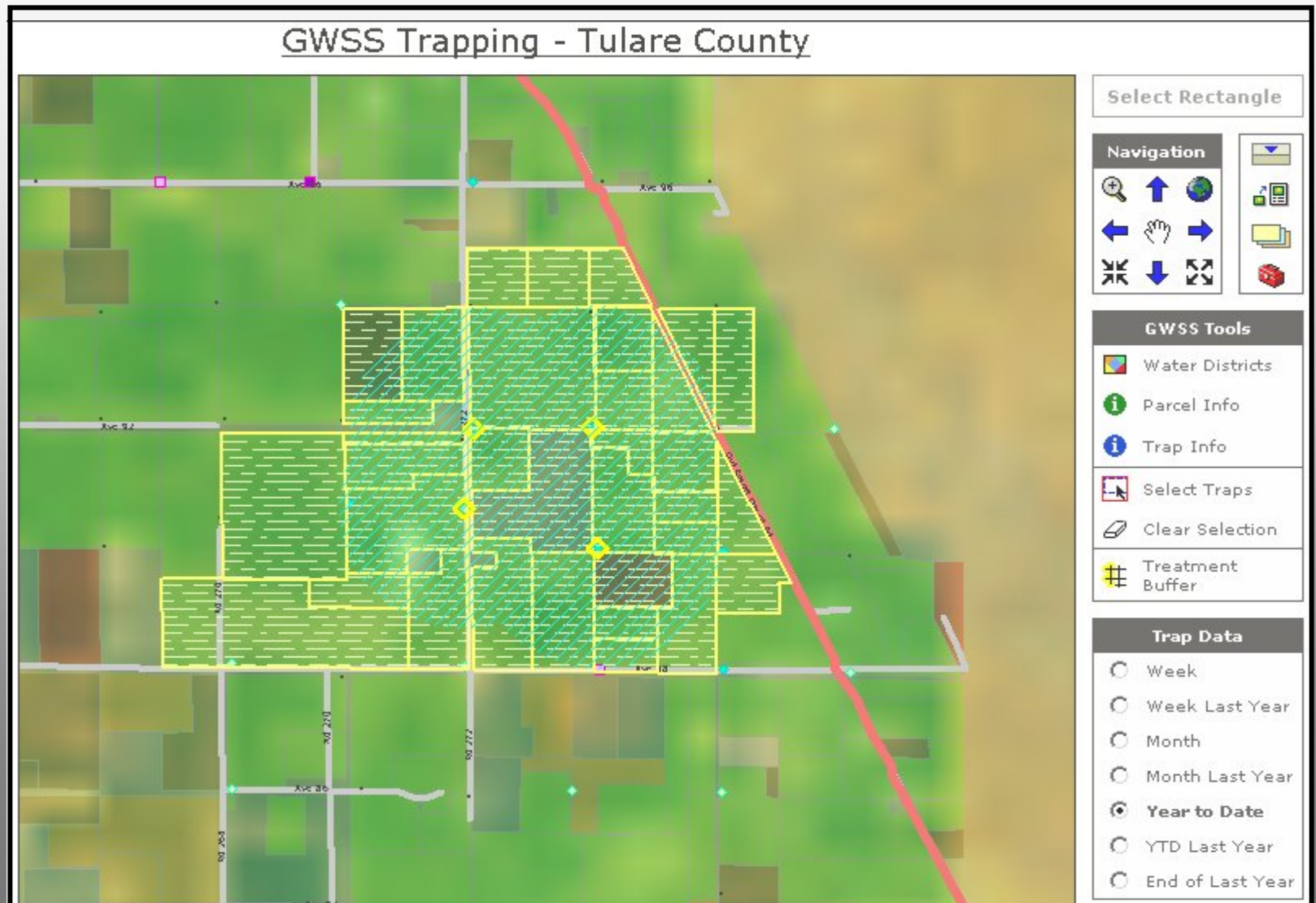


# Glassy-winged Sharpshooter





# Situational Awareness





# Glassy-winged Sharpshooter

## Data Need

- Crop Change
- Parcel boundary
- Surrounding crops
- Trap Verification



# EARLY PEST DETECTION

## Increase in Pest Survey

- CAPS Area-wide Surveys
- Commodity Surveys
- Targeted Detection Surveys – “Hot Zone”





# Survey Data Collection

## Mobile GIS

- Navigation
- Data Integrity
- Data Integration





# RAPID RESPONSE

## Future PPQ Programs

- Preparing for the Unknown
- Pro-active vs. Reactive
- Scalable Foundation



# Soybean Rust



United States Department of Agriculture

Soybean Rust  
Information Site

Getting Started

[Prev](#)

[Next](#)

November - 2005

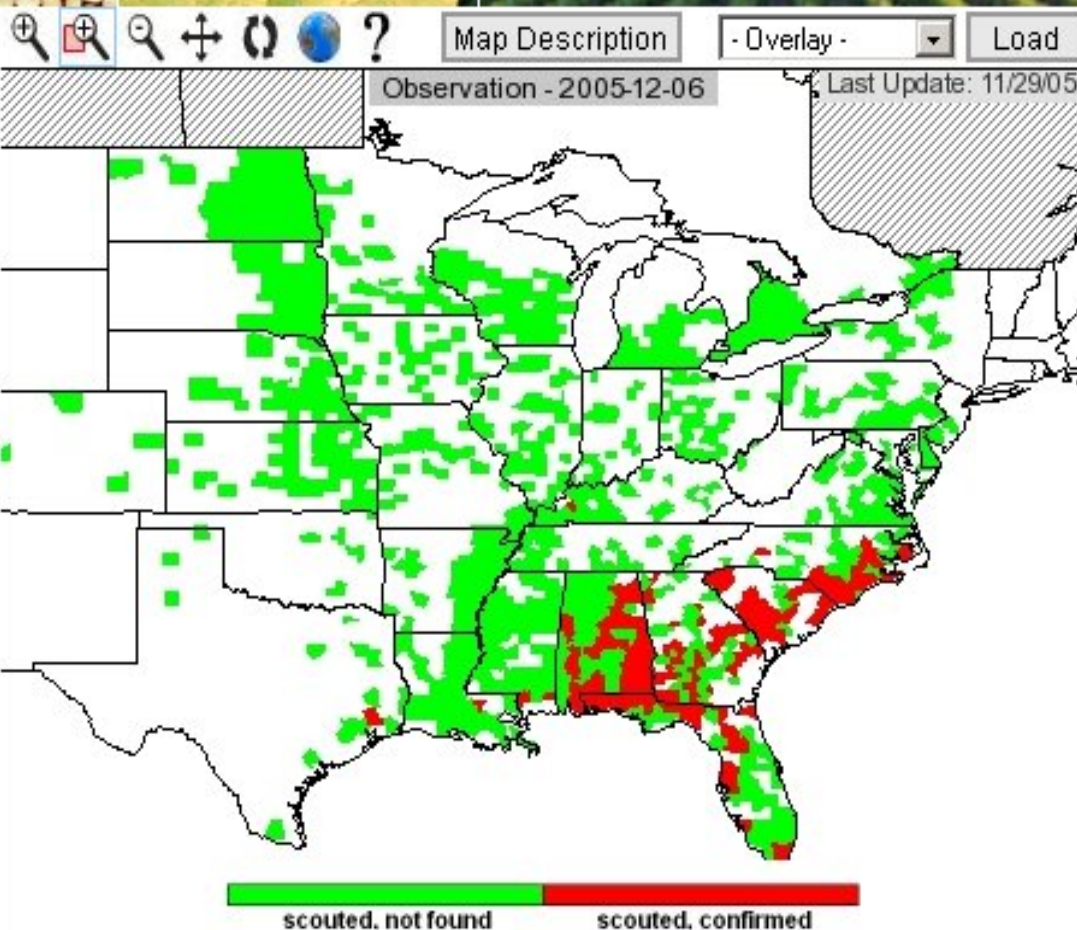
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December - 2005

			1	2	3
4	5	6	7	8	9
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27
28	29	30	31		

January - 2006

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



**Sign Up For Alerts**

**Dec 06, 2005**

**Observation**



**State Update Map**



**Chronology of Positive  
Detections**

**SBR Forecast (12/05/05)**

Cold weather over the  
northern Plains to move east  
and southeast.

**Click For Details...**





# Pest Response System







# DATA CONSTRAINTS

- Variable Geographic Extent
- Wide Range of User Skill
- Stability
- Speed of Data Access
- Integration with Existing Datasets



# OPPORTUNITY

- Education – two way
- Involvement